

EXPERIENCE

Industrial Trainee

Jan 2023 - Feb 2023

Brainstation 23

Mirpur DOHS

- Got hands on training on C# and ASP.NET MVC through Brainstation 23's LMS. During the course, I completed one desktop application project and two web-based projects using ASP.NET .

Capture The Flag (CTF)

TryHackMe

Mentor (Later Vice-President), MIST Cyber Security Club

- Certified for "Junior Penetration Tester" [link]
- Certified for "Attacking Active Windows Directory". [link].
- Became top 4 % on TryHackMe globally . [link]
- Mentor at MIST Cyber Security Club
- 24th place nationally as team lead.
- Achieved 79th place globally in Kaspersky codebreakers CTF.
- Global rank 97 at BlackHatMEA 2023 CTF Finals.[link]

Stackoverflow | AskUbuntu

Provided 4 solutions

- Solution links : 1 2 3 4

Competitive programming

2020 - Present

- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

PROJECTS

Software & Autonomous System Developer 2021 - ongoing

Mars Society's University Rover Challenge (URC)

USA

Anatolian Rover Challenge (ARC)

UKET,Turkey

- Developed an autonomous rover system using software & communication team for URC-2021 competition which became **champion globally beating 88 teams** in SAR and finally 36 teams in the final .Link.
- Developed an autonomous rover system with software & communication team for ARC-2022 competition which became **third among 14 final contestant countries** .Link
- Software & Autonomous Team Lead For URC-2023, became 2nd in Asia in SAR stage.
- Software & Autonomous Team Lead For ARC-2023, became 2nd in Asia & 5th globally.

Pretrained CNN-based Dog Classifier | Code

Tech Stack Python,ResNET,VGG16, Machine Learning

Bus Counter Management System Using JavaFX | Code

Tech Stack Swing, JavaFX, Java

Military Communication Equipment Repair and Issuing of Spare Parts Management System | Code

Tech Stack Web Development, HTML, CSS, JS, PHP, OracleDB

Simple weight machine using HX711 and Arduino | Code

Tech Stack Arduino, IOT, HX711 sensor

SoccerBot

Tech Stack Arduino,C++

DekhboKinbo | Code

Tech Stack C#, .NET Core MVC,Entity

Alumni Information Management System | Code

Tech Stack C#, MySQL

Blockchain-based Land Record management system with biometric authentication | Blockchain (Contract) | Website

Tech Stack Blockchain, Django, Arduino, IOT

PyTorch-Create Your Own Classifier | Code

Tech Stack Python, CNN, Machine Learning, AWS, Udacity

RESEARCH & PUBLICATIONS

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images.Link [got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images.Link
- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification.Link
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Accepted at ICRAIE - 2023]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data [Accepted at ICCIT-2023]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

EDUCATION

B.Sc in Computer Science and Engineering

2020 - 2024

Military Institute of Science and Technology

Higher Secondary School Certificate

2017 - 2019

Barishal Cadet College

SKILLS

Language

Python, C, C++, Git, L^AT_EX, C#, Bash,PHP, JavaScript

Frontend

HTML5, CSS, JS, Bootstrap, React.js

Backend

Flask, Django

Database

MySQL, Firebase

IOT & Robotics

Arduino, Raspberry PI, Jetson Nano & Xavier, LIDAR, ZED-Stereo Cam, ESP-32,PX4 (Pixhawk),ROS,ROS2,MAVROS Flutter, Dart

App Development
Soft Skills

English (business), Bengali (business), Public Speaking, Extempore Speech

Pentesting Tools & OS

Burp Suite, NMap, Metasploit, SQLMap, Wireshark, Nessus, John The Ripper, Hashcat, Dirb, Volatility, Parrot OS

Other

Linux, PyTorch, TensorFlow, Git, Docker, Microsoft Excel, Microsoft Word, Microsoft PowerPoint